



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,910	11/24/2003	Roxanne E. Bakula	SMI . P . US0026	5290
26360	7590	08/06/2004	EXAMINER	
RENNER, KENNER, GREIVE, BOBAK, TAYLOR & WEBER FIRST NATIONAL TOWER FOURTH FLOOR 106 S. MAIN STREET AKRON, OH 44308			VALENTI, ANDREA M	
		ART UNIT		PAPER NUMBER
				3643

DATE MAILED: 08/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/720,910	BAKULA ET AL.
Examiner	Art Unit	
Andrea M. Valenti	3643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 24 November 2003.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-20 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ .
5) Notice of Informal Patent Application (PTO-152)
6) Other: _____

DETAILED ACTION

Information Disclosure Statement

Cited document "Overview of the History, Research, and Technology of Aeroponics and Aero Hydroponics" was not considered because it was not submitted in the prior format, the article has no date and does not indicate the source of the article, i.e. magazine, internet (web site), book, etc.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 and 14 are rejected under 35 U.S.C. 102(a) as being anticipated by U.S. Patent Pub. US 2002/0195366 to Castleberry.

Regarding Claim 1, Castleberry teaches a method for the propagation of and aeroponic growing of plants comprising transplanting a living plant into a vessel of polymer foam (Castleberry #20) having at least one cavity (Castleberry #28) distal to said plant; applying water to said foam sufficient to saturate said foam, whereby roots of said plant extend into and grow within said cavity (Castleberry page 2, right hand side column, line 6-9 and page 1, paragraph [0002] first three lines).

Regarding Claims 2 and 14, Castleberry teaches a vessel comprises a foam core, defining an upper surface, a base and a sidewall (Castleberry Fig. 5), said at least one first cavity (Castleberry Fig. 5 #232) provided in said foam core, proximal to said

base; a first passageway (Castleberry Fig. 5 #250) extending through said foam core and into said first cavity; a waterproof outer coating (Castleberry #14).

Regarding Claims 3 and 4, Castleberry teaches the step of applying water includes the step of directing water into said first passageway (Castleberry page 2, right hand side column, line 6-9) including the step of adding water to said foam core.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-13, 15, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Pub. US 2002/0195366 to Castleberry in view of U.S. Patent No. 4,077,511 to Mosijowsky.

Regarding Claims 5, 7 and, 15, Castleberry teaches a vessel further comprises at least one second cavity (Castleberry Fig. 5 cavity in element #25 and Fig. 1) in said upper surface, said first passageway (Castleberry Fig. 5 #250) extending through said foam core communicating between said first and second cavities; an external flange (Castleberry Fig. 2 #18) proximal to said upper surface, a peripheral trough between said upper surface and said external flange (Castleberry Fig. 1 #18 and 20);

Castleberry is silent on the at least one bore passing through said foam core, providing a communication between said trough and said first cavity whereby the addition of water to said trough will fill said first cavity at least partially and wet said

foam core. However, Mosijowsky teaches at least one bore providing communication between the trough and the first cavity (Mosijowsky #54). It would have been obvious to one of ordinary skill in the art to modify the teachings of Castleberry with the teachings of Mosijowsky at the time of the invention for water distribution to the lower regions of the vessel for a through distribution in the foam core.

Regarding Claim 6, Castleberry as modified teaches the step of applying water includes the step of directing water into said second cavity (Castleberry page 2, right hand side column, line 6-9).

Regarding Claim 8, Castleberry as modified teaches a vessel for the propagation of and aeroponic growing of plants comprising: a foam core (Castleberry #20), defining an upper surface, a base and a sidewall; a waterproof outer coating (Castleberry #14) at least partially covering said foam core.

Regarding Claims 9 and 10, Castleberry as modified teaches the first cavity has a height of from about one-quarter to one-half the length of said foam core (Castleberry Fig. 5 #232), but is silent on a width of from about one-fourth to about three-quarters the width of said foam core and first cavity has a height of from about 4 inches (10 cm) to about 12 inches (30.5 cm) and a width of from about 4 inches (10 cm) to about 12 inches (30.5 cm). However, it would have been obvious to one of ordinary skill in the art to modify the teachings at the time of the invention since the modification is merely a change in size to accommodate different size plant root balls or bunches of flowers and does not present a patentably distinct limitation [*In re Rose*, 220 F.2d 459, 463, 105 USPQ 237, 240 (CCPA 1955)].

Regarding Claims 11 and 18, Castleberry as modified teaches the second cavity is dimensioned to fit the root ball of a plant transplanted therein (Castleberry paragraph [0023] first three lines).

Regarding Claim 12, Castleberry as modified teaches the foam core is selected from the group consisting of hydrophilic polymer foams (Castleberry page 2, second column, first line).

Regarding Claim 13, Castleberry as modified teaches the coating is selected from the group consisting of epoxies, polyurethanes and phenolic resins (Castleberry paragraph [0023] line 5).

Claims 16, 17, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Pub. US 2002/0195366 to Castleberry.

Regarding Claims 16 and 17, Castleberry teaches the first cavity has a height of from about one-quarter to one-half the length of said foam core (Castleberry Fig. 5 #232), but is silent on a width of from about one-fourth to about three-quarters the width of said foam core and first cavity has a height of from about 4 inches (10 cm) to about 12 inches (30.5 cm) and a width of from about 4 inches (10 cm) to about 12 inches (30.5 cm). However, it would have been obvious to one of ordinary skill in the art to modify the teachings at the time of the invention since the modification is merely a change in size to accommodate different size plant root balls or bunches of flowers and does not present a patentably distinct limitation [*In re Rose*, 220 F.2d 459, 463, 105 USPQ 237, 240 (CCPA 1955)].

Regarding Claim 19, Castleberry teaches the foam core is selected from the group consisting of hydrophilic polymer foams (Castleberry page 2, second column, first line).

Regarding Claim 20, Castleberry teaches the coating is selected from the group consisting of epoxies, polyurethanes and phenolic resins (Castleberry paragraph [0023] line 5).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

United Kingdom Patent GB 2233201A; U.S. Patent No. 5,927,002; U.S. Patent Pub. US 2003/0084608; U.S. Patent No. 4,034,507; U.S. Patent No. 3,137,096; U.S. Patent No. 5,469,654; U.S. Patent No. 4,420,903; French Patent FR 2693092.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrea M. Valenti whose telephone number is 703-305-3010. The examiner can normally be reached on 7:30am-5pm M-F; Alternating Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on 703-308-2574. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Andrea M. Valenti
Andrea M. Valenti
Examiner
Art Unit 3643

20 July 2004

Peter M. Poon
Peter M. Poon
Supervisory Patent Examiner
Technology Center 3600